upgradation of safety in these plants. Action Plans with schedules have been formulated to resolve these issues and AERB is closely monitoring their compliance.

The Atomic Energy Regulatory Board (AERB) already enjoys functional independence.

**Capacity of Nuclear Power Plants**

34. DR. MANMOHAN SINGH: Will the PRIME MINISTER be pleased to state:

(a) the increase in the capacity of nuclear power plants in the 1990s;

(b) the extent of the capacity utilisation thereof;

(c) the financial performance of nuclear and power plants; and

(d) the future plans for the expansion of nuclear power capacity?

THE MINISTER OF STATE IN THE DEPARTMENT OF ATOMIC ENERGY (SHRIMATI VASUNDHRA RAJE): (a) The capacity additions through the nuclear power plants during 1990s are as follows:

| Plant | Capacity (MWe) | Date of Commercial Operation |
|---|---|---|
| NAPS-1 | 220 | 1.1.1991 |
| NAPS-2 | 220 | 1.7.1992 |
| KAPS-1 | 220 | 6.5.1993 |
| KAPS-2 | 220 | 1.9.1993 |

| Plant | Capacity (MWe) | Date of Commercial Operation |
|---|---|---|
| KAPS-2 | 220 | 1.9.1995 |
| Kaiga-2 | 220 | * |
| RAPP-3 | 220 | ** |
| Total: | 1320 | |

*Synchronised to Southern grid on 2.12.99.
**Achieved criticality on 24.12.99.

(b) and (c) The overall capacity utilisation of Nuclear Power Plants and the net profits earned by NPCIL during the last four years are given below:

| Year | 95-96 | 96-97 | 97-98 | 98-99 |
|---|---|---|---|---|
| Overall Capacity Factor (%) of NPCIL units excluding RAPS-I | 60 | 67 | 71 | 75 |
| *RAPS | — | — | 40 | 63 |
| Overall Net Profits earned by NPCIL (Rs. in crores) | 151.99 | 252.97 | 264.95 | 361.53 |

*RAPS-I was shut down in the year 1994 due to Over Pressure Relief Device leak. This Unit was re-started on 31st March. 1997 and the Capacity Factor achieved during 1997-98 was 40% based on the operating power level of 100 MWe from April 97 to June 97 and 150 MWe from July 97 to March 98 as permitted by the Atomic Energy Regulatory Board.

(d) Kaiga Atomic Power Project-2 of 220 MWe has been synchronised to the Southern grid on 2.12.99 and Rajasthan Atomic Power Project-3 of 220 MWe has achieved criticality on 24.12.99. Apart from completing and commissioning the ongoing project of a total capacity of 440 MWe, comprising of the Kaiga Atomic Power Project Unit-1 and the Rajasthan Atomic Power Project Unit-4, proposals for nuclear power development in the Ninth Five Year Plan

include commencement of work on two units (3 and 4) of the Tarapur Atomic Power Project (TAPP) (2×500 MWe), Kaiga Units-3 and 4 (2×220 MWe), besides the commissioning of the Detailed Project Report (DPR) for the 2×1000 MWe Nuclear Power Station at Kudankulam in Tamil Nadu with Russian assistance and the commencement of preliminary work on the Prototype Fast Breeder Reactor (PFBR) (1×500 MWe) towards the end of the Ninth Plan.

**Expenditure on Atomic Energy Plants**

35. SHRI PREM CHAND GUPTA: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that expenditure of Rs. 50.12 Cr. was incurred on design and consultancy for 12 Atomic Energy Plants whereas expenditure on site was confined to only two plants resulting in burden of consultancy at the rate of Rs. 25.06 Cr. per plant instead of mere Rs. 4.18 Cr. per plant; and

(b) if so, what are Government views on this?

THE MINISTER OF STATE IN THE DEPARTMENT OF ATOMIC ENERGY (SHRIMATI VASUNDHRA RAJE): (a) and (b) The design and consultancy expenditure of Rs. 50.12 Crore up to end March 1998 includes Rs. 46.47 crore towards TAPP-3&4 (2×500 MWe), Rs. 2.36 crore towards RAPP-5 to 8 (4×500 MWe) and Rs. 1.29 crore towards Kaiga-3 to 6 (4×220 MWe). The design and consultancy expenditure towards the first 2×500 MWe project (Tapp-3&4) includes partly, works which are common to future 500 MWe units and the remaining specific to the project. Irrespective of the number of 500 MWe units that may be set up as per the Programme, the common design and consultancy works are necessarily to be carried out. This expenditure as a result, will have to be borne by TAPP-3&4. However, in future for 500 MWe units, the common works already carried out need not be repeated while site specific design and consultancy works as necessary only will be carried out and to that extent the expenditure on design